Comment on Cell Phone Accessibility

September 28, 2010

The following document is intended to respond to your request for comments on cell phone accessibility to people who are blind or otherwise visually impaired, deaf or hard of hearing, or deaf-blind. As I use the term here, cell phone could also apply to other mobile devices. I am interspersing my responses into the questions you ask in your request for comments.

(1) The wireless phone features and functions in the current marketplace that are not accessible for people who are blind, have vision loss, or are deaf-blind and the extent to which gaps in accessibility are preventing wireless communication access by these populations;

I can not address these issues for populations overall, but I offer my situation as an example of the problems that are out there. I am totally blind, as a result of what is now called retinopathy of prematurity; I also have a nerve-type hearing loss and wear hearing aids in both ears. In relatively quiet locations, I do fairly well in conversation with other people, but I have trouble hearing in noisy situations. When it came time to select a cell phone, I chose NexTel, (which has subsequently become part of Sprint Communications), because they have a fairly loud speaker phone system. I have to use the phone on speaker, so that I can hear conversation. The result is that I have no privacy when using the phone in public, but I consider myself blessed in being able to hear over the NexTel phone; another friend of mine is also very hard of hearing; she can communicate in conversation face to face with the aid of lip-reading, but she cannot hear through a cell phone, even my loud NexTel.

The particular NexTel phone that I use has some speech features for some of the menus, but the speech only goes down so far into the menu system; for instance, it will not read me an e-mail. Moreover, to input into this phone, one must use the numeric key-pad, and because the phone does not afford easy feedback, it is hard to know whether one has input the correct letter. For example, the letter c is written by hitting the number 2 key three times, a system that I find cumbersome and not workable. When I obtained my current model NexTel phone, I was shown another sprint model that the menus went a little further, but I did not find the phone speech as clear as my present model. I have made no move to change phones, because I would have to do better than what I have before I would change.

(2) The cost and feasibility of technical solutions to achieve wireless accessibility for these populations;

I have been told that software is available that could make my phone talk more in the menus, but I have no idea whether it would work with my phone, or whether I am authorized to find someone to download such software into my phone. I think the populations of users with special needs are not considered large enough to prompt the kind of competition among providers that would find solutions and keep the costs down. Braille displays are available on other somewhat portable devices, but they are nowhere near as portable as the phones, and there presently are logistical problems that are hard to overcome. Braille is a very bulky communication system: it takes volumes of Braille to comprise a document the size of a Readers Digest, and a forty cell Braille display would cover 9 or ten inches.

The note taking devices that have these displays also have some wireless and e-mail abilities, but I do not think that they are phones, too. Also, they are made by very specialized companies that work with adaptive technology, and they cost thousands of dollars. They do not compete with the cell phones that can cost between less than a hundred and five and six hundred for the "smart phones". Also, even the phones with QWERTY keyboards have such small keyboard that I would personally find it cumbersome to write on them, and they still do not have accessible displays.

(3) Reasons why there are not a greater number of wireless phones âââ€š¬ââ‚¬Å“ particularly among less expensive or moderately-priced handset models âââ€š¬ââ‚¬Å“ that are accessible to people who are blind or have vision loss;

As I mentioned above, our population is probably not considered large enough to prompt serious efforts to mainstream these technologies. I personally think that this idea is very short-sighted; with the population of the country aging, it will be more and more difficult for people losing their sight and hearing as they age to access these systems, and the costs of the specialized devices are prohibitive. Moreover, as discussed above, there are serious logistical issues. I personally think that what is needed is true speech recognition capability that would allow the phones to convert speech into output text, and convert text on screen into clear, discernible speech. However, that will not solve the problem of the deaf who cannot hear speech and also are blind. Some form of Braille display is right now their only solution, and a text input device that is accessible.

(4) Technical obstacles, if any, to making wireless technologies compatible with Braille displays, as well as the cost and feasibility of technical solutions to achieve other forms of compatibility with wireless products and services for people who are deaf-blind;
See what I have said above. I do not pretend to have the technical answers asked for here. The biggest logistical difficulty is the size of Braille and the resulting large size (compared with a phone screen) of the Braille display.
(5) Recommendations on the most effective and efficient technical and policy solutions for addressing the needs of consumers with vision disabilities, including those who are deaf-blind.

In a time of budget deficits, I recognize that taxpayers resist paying for special needs, but maybe some form of tax credits or incentives might help to subsidize and encourage innovations. Also, obstacles need to be removed in terms of the proprietary nature of the software of these phones: the companies that make them should be required to either furnish software to enhance the speech output of the phones or eliminate barriers to users installing other makers software for this purpose.

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